Amendments To The Claims:

Please amend the claims as shown.

1 – 4 (canceled)

5.   (currently amended) A method for the operation of a technical system, comprising:

recording a plurality of operating parameters of a system during a time interval; and

determining an operating or functional mode of the technical system from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm, wherein the determining of the operating or functional mode of the technical system from the temporal behavior the operating parameters is performed with no model of the technical system.

6.   (previously presented) The method according to claim 5, wherein an operating and a functional mode of the technical system are determined from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm.

7.   (previously presented) The method according to claim 5, wherein the operating parameters are recorded as data sets during a plurality of temporally separate time intervals and the data sets are compared using the artificial intelligence methods, and an adjustment of the operating parameters is determined in order to achieve a desired operating mode of the technical system.

8.   (previously presented) The method according to claim 7, wherein a probability that an adjustment of the operating parameters provides for the desired operating mode is determined.

9.   (previously presented) The method according to claim 8, wherein the operating mode of the technical system is determined using a correlation analysis of the operating parameters, wherein the result of changes in operating parameters that correspond to input parameters is determined based on operating parameters which correspond to output parameters.

10.   (currently amended) A method of controlling the operation of a power station, comprising:

  recording operating parameters of at least part of a system during a time interval;

  determining an operating mode or functional mode of the technical system from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm, wherein the determining of the operating or functional mode of the technical system from the temporal behavior the operating parameters is performed with no model of the technical system;

  assigning a fingerprint to the operating parameter by the artificial intelligence method;

  comparing the fingerprint to a predetermined fingerprint; and

  adjusting the operating parameters of the power station in order to achieve a desired operation of the power station.

11.   (previously presented) The method according to claim 10, wherein a probability that an adjustment of the operating parameters provides for the desired operating mode is determined.

12.   (previously presented) The method according to claim 11, wherein the operating mode of the power station is determined using a correlation analysis of the operating parameters, wherein the result of changes in operating parameters that correspond to input parameters is determined based on operating parameters which correspond to output parameters.